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Atari Online News, Etc.
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~ OpenOffice 2.0 Delayed ~ Security MS' New Woe? ~ PayPal Buys VeriSign
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-* Hotmail To Become New Kahuna *-
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->From the Editor's Keyboard
"~~~~~"

"Saying it like it is!"

I have to apologize for last week's "editorial"; it's so embarrassing! When I was poring over the issue last week, putting the final touches in, I forgot that I hadn't finished my story! I was side-tracked while writing it, and forgot to go back to it. Well, let me try it again!

Earlier last week, I actually had a moment to let my mind wander a little bit. I had been doing some clearing out of some clutter, and realized how much Atari stuff that I had around my study. As I was looking at each item, I would be reminded how and when it came into my possession. And that led to my remembering how I got involved with Atari computing in the first place.

It was some time in 1987. I was working on the beginnings of what I was hoping to become a mystery novel. I was putting down ideas on paper, and then dragging out an ancient Royal typewriter that my mother had given me when I went off to college. It was a pain. At around that time, my sister-in-law's (at the time, my wife's sister was not married) husband were frequent visitors. We shared interest in gaming (at the time, my big interest was still the 2600. He had a few Atari 8-bit machines, and I managed to borrow one of them to play a few games. I borrowed, I think, three games. I don't recall what they were, but two were ones in which I had to type in the code, and the other was cartridge-based. Needless to say, I played the cartridge game most of the time! I didn't do much writing on that machine.

Well, perhaps a few months later, a better solution was offered to me. He was looking to upgrade to a "new" Atari computer, and wanted to know whether or not I wanted to buy his "old" one. The price was right, so I took the deal. That was my first 520ST. He bought a 1040ST shortly after. Anyway, I now had 1ST Word to do my writing. It was terrific. I picked up a new Panasonic dot-matrix printer, and I was all set to go. The writing began, at least for awhile.

I kept upgrading that system. First I upgraded the memory, making it a full 1 meg system. Then came the second external floppy drive. Then a 1200 baud modem - the blazingly fast Hayes. Then, the major upgrade, an Atari SH204 hard drive! More software, and more software. I found a bunch of ATari dealers - I was in heaven. Then the magazines. And then I was hooked on the BBS scene after picking up the original Flash. I then joined a user group. Everything grew from there.

Eventually, I was running my own BBS, putting together our user group

newsletter, using TimeWork's WordWriterST and DataManagerST routinely for everything. Then TimeWork's PublisherST and eventually Publishing Partner and its successor, PageStream. A Panasonic laser printer supplemented my printing needs.

Well, the 520ST continued to be my workhorse. The modems were upgraded, the hard drives got more capacity, the single-sided floppy drives became doubles. The software improved, and the titles grew. I added new systems and still have many - from the 520, 1040, MegaST, Stacy, up to the Falcon. I never had a TT, but maybe one day one will fall into my lap (if my wife isn't around to kill me first!).

I'm still using my Atari machines on a daily basis. Mostly, it's for the grunt work putting A-ONE together every week. But, I still manage to get in a few games once in awhile - there's no getting away from the likes of Dungeon Master and Leisure Suit Larry! But, most of my Atari stuff is boxed up and stashed away somewhere. Had the Tramiels managed to compete, I'd still be using the latest and greatest Atari machines and software. But, as we all know of the history, that didn't happen. But that doesn't prevent me from being a hanger-on. There are too many great memories - and uses - still with my Atari computers. As long as they continue to function, I'll use them. But like many of us, these Atari treasures are supplemented with the latest and greatest Mac and PC machines, for other uses. Technology marches on, but memories stay forever!

Until next time...

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PEOPLE ARE TALKING
compiled by Joe Mirando
joe@atarinews.org

Hidi ho friends and neighbors. We've had nothing but rain this past week, and everything is soggy. The house we live in is close to the banks of what used to be a shipping canal. The ground is always damp regardless of what the weather is, but now everything is spongy and... bloated.

With the talk about global warming and changing weather patterns, I'm starting to wonder if southern New England is going to end up being the east coast Seattle.

I'm not complaining though. While we here are contending with water falling from the sky, there are others contending with earthquakes and starvation and genocide. I think I can deal with a little rain.

Let's get to the news, hints, tips and info from the UseNet.

From the comp.sys.atari.st NewsGroup
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'Dave' asks about which 'flavor' of SCSI to use:

"[I] Just bought an external 100mb ZIP drive for my Falcon and now need a cable. Can anyone tell me which flavour of SCSI cable I need to buy, SCSI I, II or III? The Zip drive has a 25pin female socket and the Falcon a 50pin socket (Very small pins - ultra SCSI?)"

Jim DeClercq tells Dave:

"Probably not. The Zip drive takes a DB50, I think. The Falcon end is shown as a SCSI 2 in the Best Electronics catalog, and is otherwise known as a HP50 or HD50, depending on where you look. Both ends should be male.

One place to find such is Cables To Go. They have a website. So does Best, who may have one to sell.

Oops. 25 pins on the Zip. DB25."

'Coda' adds:

"Cables/Connectors cant really be reliably described by saying SCSI I,II or III. All you want is a 25pin to High Density 50pin cable."

While we're on the subject of cables and stuff for the Falcon, Ronald Hall asks about an extension cable for his floppy drive:

"I know some others of you have re-cased your Falcons. Where did you get the extension cable for the floppy drive?

The other Falcon I had (the one I just sold) had already been re-fitted by someone else with a standard floppy header so it was easy to find a cable long enough to move the floppy.

Now though, my current Falcon has the standard Atari floppy header, and I can't find an extension cable that will work. I've got 3 floppy cables that have a header on one end that plugs into the cable coming out of the Falcons' MB, and the other end plugs into the floppy drive. None of them seem to work though. Using any of these cables, I get an error from TOS or MINT/Thing that track A can't be read. Plug the floppy straight back into the cable from the Falcon and it works just fine.

I've already sent an e-mail to Brad at Best Electronics but I just wanted to see what others have done."

Rory McMahon tells Ronald:

"I unsoldered the attached cable and put a dual row header. I then modified a PC floppy cable by reversing the 9 through 16(i think) wires in the cable. A PC cable A: drive has the wires reversed. You just switch them back to normal cable. I've taken a few round cables and they work fine.

I can do this if needed."

Ronald replies:

"I think thats what somebody had done to the Falcon I sold. It worked great, except that, as you mentioned the wires were reversed. Since it will fit, I just flipped the end connector over before hooking it to the floppy itself.

Let me see if I can find/obtain a cable that will work first, then if I can't, I might take you up on your offer."

Thomas Brown jumps in and posts:

"I will be recasing my Falcon soon as well and was wondering about the floppy cable myself..Is the floppy cable thats in the Falcon fixed to the motherboard? I was going to remove it but didn't want to rip it out (I think i saw in a post someone did that) do i need to get a header (the pins) installed? and if so who/where can i get that done for a reasonable price (NO WAY am i going to attempt it)."

Rory tells Thomas:

"I can install the header if needed. I live in Illinois and would have a quick turnaround. If you are installing the CT6x then I can update the required parts."

Thomas replies:

"Great! I just got my memory for the ct60 so will see if it will fire up (i had old memory from a pc but was no good) The header can be done..just one question if i get the floppy extension is there any loss of signal to the computer? I also need to see if i can still get the usb card from nature..I may have missed my chance due to emergency repairs to a crappy water heater line.. thanks for the help!"

Peter West adds:

"If these are cables from a PC, have you tried plugging them into the drive upside down? I seem to recall that for some reason there is a difference on the Atari from PC. Also, make sure that the cables don't have any wires crossed. Are these the usual flat cables with crimp-on IDC connectors?"

Greg Goodwin posts:

"I finally had a reason to go try WordPerfect on the CT60. Under 256 color and extended resolutions it doesn't work. (The same is true on a regular Falcon.) Under 16 color 640x480 it did indeed work with the CT60 and was VERY fast. There was some minor screen gibberish, but I seem to recall this happens occasionally on regular Falcons as well."

'Phantom' tells Greg:

"Not for sure, but I seem to remember that there are two versions of

WordPerfect.

One didn't work well or at all on the Stock Falcon030, and the other version ran just fine.

I picked up a Complete version 4.1 of WP lately. At least I think it was 4.1.

I already had a complete version that would not run on the stock Falcon. Not sure what version it was.

Anyone know about this and what version does work correctly on the Falcon?"

Ronald Hall posts this about SuperMaze:

"For those who remember MidiMaze, there is a pretty good clone of it available now for Windows, Linux, and soon the Mac. You can see details at: <http://www.indiesatwork.com/>

Me and a few friends sure spent some time playing the original back in the 80's!"

Alexander Beuscher tells Ronald:

"Have a look at this clone as well:
<<http://home.tu-clausthal.de/student/iMaze/>>

It appears to be closer to the "original" at least concerning the graphics..."

Ronald agrees:

"Sure does, doesn't it? I thought I'd mention as well, it looks like Imaze is completely free/sourced, while SuperMaze looks like it has some proprietary stuff in it. Just for those who are concerned about such things."

'Chris' takes a look and posts:

"Wow, that looks great. I remember playing that in my long ago school days (midimaze that is) great for wasting hours of time, though I just got too good at it and knew those massive mazes a bit *too* well."

Well folks, that's it for this week. Tune in again next week, same time, same station, and be ready to listen to what they are saying when...

PEOPLE ARE TALKING

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->A-ONE's Game Console Industry News - The Latest Gaming News!

SoulCalibur III Goes Gold For Playstation 2

Leading video games publisher and developer Namco Hometek Inc. announced that "SoulCalibur III" has gone gold for the PlayStation 2 computer entertainment system. The latest chapter in the classic tale of souls and swords, "SoulCalibur III" secures its position as the must-have fighting game for 2005 with an in-depth character creation system, three brand-new characters and original gameplay modes. "SoulCalibur III" is scheduled for release in stores on October 25th, and is rated T for Teen by the ESRB.

"Fighting game fans should look no further than 'SoulCalibur III' for the most exciting fighting experience available on the PlayStation 2 in 2005," said Yoshi Niki, Business Unit Director with Namco Hometek Inc. " 'SoulCalibur III' does justice to the legendary franchise with incredibly detailed graphics, a vast selection of playable characters and challenging new gameplay modes including real time strategy."

The acclaimed series' latest addition, "SoulCalibur III" thrusts players into the story of two legendary swords - Soul Calibur and Soul Edge - and the fighters engaged in the epic battle between these powerful blades. Three all-new characters - Zasalamel, Tira and Setsuka - join the classic fighters embroiled in the struggle, for a total of more than 25 playable characters. The weapons-based battles take place against a backdrop of gorgeous all-new stages, from a shrine in Greece to a castle in Germany.

"SoulCalibur III" incorporates a groundbreaking new character creation system that allows players to draw from their imaginations and assemble an infinite variety of fighters, taking into account gender, physical appearance, fight style and all-new weapons for the created characters. Other new gameplay modes also make their debut in "SoulCalibur III," and add to the title's replayability. Players may lead their created character through real-time strategy battles in The Chronicles of the Sword mode; battle through a variety of special conditions that take an interesting spin on traditional SoulCalibur-style fighting in Soul Arena mode; prepare for battles by training in the Practice mode; or visit Museum mode to view everything that they've unlocked in the game.

Driving Games Liberate Gridlocked

As if the daily grind wasn't bad enough, it's usually wedged between something even worse: the daily commute. Enter the twisted metal logic of video games, where crashes are encouraged, there's a speed minimum instead of a limit, and gridlock is just another obstacle to plow through.

Some games intended to unleash that nagging case of lead foot:

"Burnout Revenge" (E-rated, \$49.99, PlayStation 2, Xbox).

Electronic Arts, the same company that publishes the edgy "Need for Speed" racing games, redefines high-velocity adrenaline rush with "Burnout Revenge." The sense of incredible speed is perfectly rendered here, with 200 mph action that actually blurs the graphics. You'll career through an excellent variety of courses that includes urban alleys and twisting mountain roads. This version has even better visuals and sound than last year's "Burnout 3: Takedown." A new "Traffic Attack" mode is great for stress relief, if only because it's such easy, sadistic fun to imagine yourself ramming all the stupid drivers you've ever encountered in the real world.

Three stars out of four.

"FlatOut" (T-rated, \$49.99 for PlayStation 2 and Xbox, \$39.99 for personal computers).

If high speed and big explosions aren't your thing, how about bodies flying through the windshield? "FlatOut" should be mandatory for those trying to pass driver's ed, if only because it so vividly shows what can happen when you don't wear a seat belt. Though bloodless, my driver was constantly being ejected as I skidded around a dirt track filled with stacks of lumber, scaffolding and tree stumps. The sight of my hapless corpse being tossed hundreds of feet into the air was perversely amusing at first. But after a while I was wishing for a seat belt. If corpse-flinging is your thing, you'll probably enjoy a special mode where you can crash your flailing driver against giant dart boards and bowling pins.

Two and a half stars out of four.

"187 Ride or Die" (M-rated, \$49.99 for PlayStation 2, Xbox). "187 Ride or Die" brings a heavy dose of four-letter expletives to this simple racer involving stereotypical gangsters vying for street cred. Suffice it to say, the asphalt-thin story isn't worth your time. As you drive around a series of rather short urban tracks, you collect a cache of machine guns and bazookas to blow rivals off the street. Successful takeouts result in some cool slow-motion replays of the flying, burning wreckage of your foes. But there isn't much variety to the weapons, and the tracks are short and get boring fast. What's left is an oversimplified, redundant exercise in peeling out and shooting that didn't hold my interest long.

Two stars out of four.

The video game industry on Monday vowed to challenge California Gov. Arnold Schwarzenegger in court to fight a new law banning the sale of violent video games to children.

The trade group Entertainment Software Association "intends to file a lawsuit to strike this law down and we are confident that we will prevail," President Douglas Lowenstein said in a statement on Monday.

Schwarzenegger signed the California measure into law last week, but it faces an uncertain fate. Federal courts have ruled against similar legislation in Washington state, the city of Indianapolis and St. Louis County in Missouri, finding the laws violated free speech guarantees in the U.S. Constitution.

"The certainly of a constitutional challenge makes this a hollow gesture," Jeff Brown, spokesman for Electronic Arts Inc., the world's biggest video game company, said of Schwarzenegger's move.

The legislation bars the sale and rental to minors of games that show such things as the killing, maiming or sexual assault of a character depicted as human, and which are determined to be especially heinous, atrocious or cruel. Violators are subject to a \$1,000 fine.

Passed by the California legislature last month, and due to take effect on January 1, the new measure follows heated national debate after game publisher Take-Two Interactive Software Inc. pulled its blockbuster game "Grand Theft Auto: San Andreas" from retail shelves this summer because of hidden sex scenes. A new version of the game, minus the disabled content that started the flap, is back on store shelves.

Schwarzenegger, a Republican, has starred in many violent movies, such as "The Terminator," "Conan the Barbarian," and "Collateral Damage." He said he signed the bill to keep the games out of the wrong hands.

Several other states, including Illinois and Michigan, have passed similar laws, prompting legal fights with the \$10 billion U.S. video game industry. U.S. Sen. Hillary Clinton is leading a similar crusade on the federal front.

The Entertainment Software Association has launched legal challenges in Illinois and Michigan and plans to file its lawsuit in California in the next week or two, a spokesman for the industry group said.

Electronic Arts' Brown said several courts have affirmed that games enjoy the same constitutional protections as movies, books and television.

"I expect they will come to the same conclusion in California," Brown said.

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Microsoft's Web Mail Gets Overhaul

The Hotmail millions (Microsoft reports 200 million users) know and perhaps love could be replaced. For the last seven months, Microsoft has been beta testing a radically different Web mail client, one that makes Hotmail's largely standard HTML interface look like yesterday's news. Kahuna supports drag and drop, right-clicking, multi-select and, in general, a much more Outlook-like look and feel.

Today the beta program expands to over 200,000 users and should roll out to the general Hotmail user population next year. Microsoft officials told PC Magazine that the new Hotmail, code named "Kahuna", has been built from the ground up with AJAX (Asynchronous JavaScript and XML) technology. It also includes enhanced phish and spam-detecting techniques, better virus detection and better search.

The virus, phish detection and spam management tools will be housed in a new "InfoBar", and the Calendar has a more Outlook-like feel. Microsoft has also made a more powerful Contacts area, simplified new contact management and added auto-recipient complete (for when you have matching contacts in your contact database) for new e-mail. Mail creation has also been enhanced, with Rich Text Editing features. Baseline storage space for the free service will be 2GB.

Microsoft's announcement comes close on the heels of the introduction of Yahoo's beta preview of its new Yahoo WebMail client, which also uses AJAX to create a far more desktop e-mail client look and feel.

OpenOffice.org 2.0 Release Delayed

OpenOffice.org had hoped to celebrate its fifth birthday today by launching the next generation of its office software suite, but a glitch has delayed release of the product for one week.

According to a blog posting by OpenSource.org community member Stefan Taxhet, "a serious showstopper" apparently related to graphics was detected at the last moment, and developers agreed to postpone the release until the problem has been fixed.

The delay also allows developers to apply patches for other problems with OpenOffice.org 2.0 related to the printing of text and two issues related to Mac OS X.

The OpenOffice.org suite, backed by a group of developers organized by Sun Microsystems, includes word processing and spreadsheet applications. It offers default support for the new XML-based OpenDocument format, approved by the Organization for the Advancement of Structured Information Standards (OASIS).

That format got a boost recently when Massachusetts' I.T. department announced that OpenDocument would be the preferred program for state documents starting in January 2007. Also, Sun and Google have agreed to collaborate on several initiatives, including promotion of the OpenOffice.org software suite.

OpenOffice.org community development manager Louis Suarez-Potts said that

the group has recorded some 47 million downloads since the inception of OpenOffice.org. With the release of version 2.0, that number is expected to reach 100 million in short order, he said.

Suarez-Potts suggested that, in light of the Google partnership with Sun, the profiles of OpenOffice.org and the Open Document Format (ODF) have been raised to a new level.

Because the earlier iteration of OpenOffice.org is still functional, the delay should pose no problems for the organization, said IDC analyst Dan Kusnetzky. While use of OpenOffice.org software on Windows-based hardware remains limited, he said, it is making headway among Linux and Unix users.

Yankee Group analyst Laura DiDio noted that launch delays are common in the software industry, and that as long as the delay is relatively short it is not cause for concern. "It's better to fix the glitches before the release than after," she said.

As for the popularity of OpenOffice.org, DiDio said Microsoft's Office suite dominates the market by a large margin. She did point out, though, that Sun's StarOffice open-source offering has attained a 19 percent market share among small to midsize businesses.

Portal Strategy Is Key to Interest in AOL

A year ago, America Online Inc. was seen as an ailing dinosaur of the dial-up era, its Internet access business fading fast. Now that it's tapping into the online advertising boom by opening up its content to anyone who wants it, AOL is a hot property being courted by powerhouse suitors including Microsoft Corp., Google Inc. and Comcast Corp.

Google and Comcast are said to be in talks about taking a joint stake in AOL for its Web portal. That follows discussions between Microsoft and AOL parent Time Warner Inc. about a possible partnership with the MSN online business.

Credit AOL's decision to abandon its longtime strategy of exclusivity and unleash its rich array of offerings - concerts, news, sports and e-mail - to the World Wide Web for free, a model Yahoo Inc. drove to become the Web's top brand.

"They were a company waiting to die," industry analyst Rob Enderle said Thursday of AOL. "They've done some work to make the property more attractive. The portal strategy is what gave them a future. It's nowhere near where it needs to be, but at least they've got one."

With such successes as delivering seven separate video feeds from July's Live 8 concerts - all without any meltdowns - AOL is no longer viewed as a drain on its parent even as AOL's dial-up subscribers leave in droves for increasingly cheaper high-speed cable and DSL phone lines.

Indeed, AOL's new strategy lets it tap the growing U.S. Internet advertising market, which jumped 26 percent to a record \$5.8 billion for the first half of the year, according to the Interactive Advertising Bureau. And that's only a fraction of the overall ad industry, meaning there's still plenty of room to grow.

Time Warner's chief executive, Dick Parsons, told an investor conference last month that accelerating AOL's transformation into an advertising-driven business was a top priority and the best way to add value to Time Warner's long-slumping share price.

Analysts say a Google-Comcast-AOL deal could benefit all parties and shows how well AOL has managed to shed its image as a dying business. (Subscriptions remain a large part of AOL's revenue base but continue to drop. As of June 30, it had 20.8 million U.S. subscribers, down from a peak of 26.7 million in September 2002).

AOL and its collection of properties, including Moviefone and MapQuest, still aren't viewed as a destination site like Yahoo or MSN, said Enderle.

AOL's free and subscription sites have grown 3 percent in the past year, attracting 72.5 million visitors in September, according to Nielsen/NetRatings. But Google grew 28 percent in visitation, to 79.4 million that month.

And both trailed Yahoo and Microsoft.

A combined AOL-Google would have made the brand tops with 107 million visiting either or both in September, surpassing industry leading Yahoo's 99.3 million.

AOL could benefit through referrals from Google's search site as well as Comcast's high-speed subscribers, said Jonathan Gaw, a research manager at IDC.

For Google, AOL offers video and other programming that Google has been increasingly trying to deliver as it expands beyond search. A stake in AOL also could let Google preserve a lucrative ad-and-search partnership that now accounts for more than 10 percent of Google's revenues, according to Google's regulatory filings.

For Comcast, AOL would give it entertainment content, which the cable company sees as key to its future growth. Last year Comcast tried but failed to acquire The Walt Disney Co., and earlier this year it joined with Sony Corp. in a successful bid to acquire the Metro-Goldwyn-Mayer movie studio.

AOL also could give Comcast's high-speed Internet business a major opportunity to lure AOL subscribers looking to drop their dial-up connections.

And it would give Comcast the ability to sell more online advertising, particularly if it makes AOL the home page of choice for its broadband users - similar to how SBC Communications Inc. and Verizon Communications Inc. now give their users a window to Yahoo through partnerships.

Gaw said AOL brings experience in making technology user-friendly - a key advantage as computers and televisions converge into one-stop entertainment centers.

"What we're talking about with convergence is taking all these different content sources and putting them into one place," he said. "There's a lot of technology behind that."

UK Hackers Get Jail Time

Two members of the TH34t gang, authors of the TK worm, were sentenced to prison in the UK. The TK worm infected some 18,000 computers around the world, including some in the U.S. Department of Defense, causing damages amounting to an estimated \$9 million.

The TK worm allowed the hackers to gain remote control of computers without the owners' knowledge. They then used the infected systems to access personal data, compromise other computers and launch denial-of-service (DoS) attacks. The self-replicating program exploited a vulnerability in Microsoft's Windows NT and 2000 operating systems.

Jordan Bradley, 22, was given a three-month prison sentence, while Andrew Harvey, 23, was sentenced to six months of jail time. Both men, from northern England, admitted to conspiring to "effect unauthorized modifications to the contents of computers with the intent to impair the operation of those computers."

The convictions follow the arrest and sentencing of another suspected member of the gang, Raymond Steigerwalt, an American from Indiana, who is serving a 21-month sentence and was ordered to pay the U.S. Department of Defense \$12,000 in restitution fees.

The arrest and convictions of the three hackers could serve as a deterrent for those who might be toying with the idea of creating and unleashing malicious programs of their own. According to Rob Ayoub, an analyst at Frost & Sullivan, the convictions will raise awareness of the issues and encourage law enforcement to pursue these types of crimes. "It is definitely a deterrent for the people who are playing around," he said.

Ayoub predicted that the level of discouragement will be similar to the effects of the RIAA lawsuits filed in 2004 against those allegedly trading copyright-protected music on file-sharing networks. While some have said that that RIAA lawsuits have had little measurable effect on curtailing digital piracy, Ayoub argued that the suits filed against teens using peer-to-peer (P2P) software to download songs from the Internet without paying for them brought the practice to the attention of parents and significantly curtailed the number of teenagers illegally downloading songs.

However, Graham Cluley, senior technology consultant at Sophos, said the hacker convictions will create hardly a ripple in the general public. The relatively small number of computers affected by the attack, and the two-year gap between the crimes and sentencing, make it unlikely that anyone but law enforcement will take note, he said.

"Everyone likes to catch their man and get two criminals off the street, so from that point of view it was great," Cluley offered. "But the public will not notice any difference because of it."

Both analysts agree that the convictions are unlikely to have any affect on more serious Internet criminals. Given the difficulty inherent in attempting to identify the jurisdiction in which the crime occurred and the ease with which criminals can mask their identity, deterring Internet crime remains an uphill battle.

"Because so many hacking attacks are not from the hackers' computer, but are instead spread throughout a system of many computers, that is one

reason it is difficult for law enforcement," Ayoub said.

Although both Ayoub and Cluley agree that the length of the sentences fit the crime because of the limited number of computers harmed by the attack, Cluley argued that is not always the case.

"The problem we've seen in the past is that some countries have been very laid back about punishing cybercrime," he said. "We need an appropriate sentence."

Cluley pointed to the extreme differences in the level of punishment for Internet crimes from country to country as undermining efforts to deter Internet crime. For instance, a German court last year sentenced Sven Jaschan, creator of the Sasser worm, one of the most damaging and costly in Internet history, to a 21-month suspended sentence with 30 hours of community service.

Jan de Wit, the author of the Anna Kournikova virus, which infected millions of computers, was sentenced to 150 hours of community service or 75 days in jail.

Cluley suggested that countries should arrive at a general consensus about punishment guidelines for this kind of criminal activity and seek justice for their own citizens once Internet criminals have received punishment in their own countries.

"There is no reason really why these criminals cannot be extradited to countries where they also caused damage or that people who were harmed cannot file a civil suit," he said.

Microsoft, Nigeria Fight Email Scammers

Microsoft has announced an anti-fraud partnership with Nigeria, the country of origin for some of the Internet's most notorious email scams.

Microsoft, which has been working to improve security and reliability amid an onslaught of malicious software targeting weakness in Windows and other Microsoft software, signed a memorandum of understanding with the Nigerian Economic and Financial Crimes Commission (EFCC) on Friday.

The agreement is designed to foster cooperation to combat issues such as spam, phishing, spyware, viruses and counterfeiting.

The email scam, known as a 419 scheme after the relevant section of the Nigerian Criminal Code, is a computer age version of a con game that goes back hundreds of years and is sometimes called "The Spanish Prisoner."

Victims are contacted by a stranger who claims to have access to large sums of money. They are told that the money can only be accessed if they disclose the details of their bank account or put up an advance fee, but the promised funds never materialize.

The EFCC said its Advance Fee Fraud Section "is currently investigating hundreds of suspects and prosecuting over 50 cases, involving close to 100 accused persons, in courts throughout Nigeria."

Under terms of the pact, "Microsoft and the EFCC will work together to

combat the problem of internet crime through information sharing and training on Microsoft's technical expertise in this area," the parties said.

Three Charged in Massive US Music, Software Piracy Scheme

A federal grand jury indicted three men on charges of music and software piracy in what the recording industry says is the largest CD manufacturing seizure in the United States, authorities said.

The US Attorney's Office in San Francisco said the indicted defendants were charged with infringing the US copyrights of more than 325,000 CDs containing music and software.

"The allegations of massive piracy of music and software reflect the potential loss of millions of dollars to the artists and businesses who legitimately own the copyrights on these works," US Attorney Kevin Ryan said.

"These individuals are charged with affixing counterfeit labels on CDs to create the appearance of legitimacy, including the FBI Anti-Piracy Warning that stated 'Unauthorized copying is punishable under federal law.'"

The indictment follows the arrests of five individuals and searches of 13 locations in California and Texas on October 6 as part of "Operation Remaster," the Attorney's Office said in a statement.

Operation Remaster is an undercover law enforcement operation in Northern California targeting the large-scale suppliers of pirated copyrighted music, software, and movies.

Led by state, local and federal law enforcement agencies, it targets replicators, the companies or individuals who use sophisticated machinery to create hundreds of thousands of copies of copyrighted works that are then distributed.

The defendants, all California residents, were charged with conspiracy to commit criminal copyright infringement and traffic in counterfeit labels; criminal copyright infringement; trafficking in counterfeit labels; and aiding and abetting.

The Attorney's Office identified them as Ye Teng Wen, aka Michael Wen, 29, of Union City; Hao He, aka Kevin He, 30, of Union City; and Yaobin Zhai, aka Ben Zhai, 33, of Fremont.

The defendants were released on bond pending their trial. Their initial appearance in court is set for October 27.

Microsoft to Pay RealNetworks \$761 Million

Microsoft Corp. agreed to pay RealNetworks Inc. \$761 million to settle an antitrust suit accusing the world's largest software maker of using its dominance to promote its own media player, the companies said on Tuesday.

RealNetworks shares rose 34 percent after the settlement, which was seen giving it a war chest for expansion and channels for new products. For Microsoft, the settlement comes close to closing an era of legal battles.

"We're reaching a point where the legal issues from the 1990s are behind us," said Brad Smith, Microsoft's general counsel.

RealNetworks had sued its longtime rival nearly two years ago, saying that Microsoft's decision to bundle Windows Media Player for free within the Windows operating system was to blame for slower sales at RealNetworks.

RealNetworks, founded by Rob Glaser, a former protege of Bill Gates before he left to start his own company, built its business on its RealPlayer software for playing video and audio on computers. Faced with stiff competition from Microsoft's competing Windows Media Player, RealNetworks has shifted its business toward providing music and games online.

The deal "goes beyond the settlement," Gates said, adding that the agreement to cross-promote technology and services between the two companies will help them in the music market.

"We're trying to drive (the technology) to critical mass," Gates, Microsoft's chairman, told reporters.

RealNetworks' suit was one of the last remaining major lawsuits against Microsoft stemming from its landmark antitrust case with the U.S. government, which was settled in 2002. Since then, the Redmond, Washington, company has reached agreements with several U.S. states and other companies.

In July, Microsoft agreed to pay \$775 million to International Business Machines Corp. in a discriminatory pricing settlement. Last year, it agreed to pay Sun Microsystems Inc. \$2 billion. It reached a \$750 million settlement with Time Warner Inc. in 2003.

Microsoft will pay RealNetworks \$460 million in cash up front to resolve all damage claims and the remaining \$301 million will be used to promote RealNetworks' Rhapsody service on Microsoft's MSN Web site. RealNetworks will also get licenses and commitments that give it long-term access to Windows Media technologies to enhance the RealPlayer software.

"This is a much bigger deal for RealNetworks," said Alan Davis, analyst at McAdams Wright Ragen.

Asked about the fate of the RealPlayer, which competed against Microsoft and became a key part of Microsoft's antitrust challenges in the U.S. and Europe, Glaser said: "RealPlayer continues to be a competing product."

In this deal, Rhapsody effectively becomes MSN's music subscription service, complementing its own download service. Rhapsody has won kudos from analysts and some fans, but the dominant player in online music remains Apple Computer Inc.'s iTunes.

"Rhapsody is now an even stronger force to compete against Napster, AOL, Yahoo and MusicNet in the music field," said American Technology Research analyst P.J. McNealy. "It's likely to be the No. 1 in subscription services in six months."

RealNetworks' general counsel Bob Kimball said that the cash payout will give the company a "granite foundation" and "flexibility" to grow its

business, but declined to say whether the money would be used for potential acquisitions.

In demonstrations at a press conference, Microsoft chairman Bill Gates and RealNetworks chief executive Rob Glaser showed how Rhapsody could be included in Microsoft services such as MSN Search and MSN Messenger, its instant messenger service.

The deal could also have implications for Google Inc., which bundles its search toolbar with the RealPlayer, American Technology Research's McNealy said. "If Real is now in bed with MSN for search, it can't make the folks at Google very happy," he said.

RealNetworks is also withdrawing from pending antitrust cases against Microsoft in Europe and South Korea, but sources involved in those cases said the settlement is unlikely to affect their outcomes.

Microsoft is challenging a 2004 decision by the European Commission which found that it violated the law by competing unfairly.

Yahoo to Bar Minor-Adult Sex Chat Rooms

Yahoo Inc. said Wednesday it will bar chat rooms that promote sex between minors and adults and restrict all chat rooms to users 18 and older.

The changes come under an agreement with New York Attorney General Eliot Spitzer and Nebraska Attorney General Jon Bruning.

"This is about protecting kids," Bruning said.

Spitzer said authorities did not have to resort to litigation. He said Yahoo, "acting as a good corporate citizen, ... did the right thing. We asked them to create a filter to stop this kind of thing and they have done so."

In June, while still in discussions with the attorneys general, Yahoo voluntarily closed its user-created chat rooms following complaints that some had names suggesting they facilitated illegal conduct, including sex between adults and minors.

Yahoo spokeswoman Mary Osako said Wednesday that Yahoo was still determining if and when user-created chats would be restored as it makes improvements "to enhance the user experience and compliance with our terms of service."

If they do get restored, the agreement calls for Yahoo to review the names of such rooms ahead of time and reject any deemed inappropriate. Even if a room's name is innocuous, Yahoo also will bar any whose postings encourage sex acts between adults and minors, purging such chat rooms within 24 hours from when it becomes aware of them.

"These efforts are consistent with and build upon our long-standing commitment to providing a safer and more secure online experience for consumers," Osako said.

The company also is eliminating the teen chat category and limiting usage of all chat rooms to adults, although it was not clear how the company

would prevent children from signing up as adults because credit cards aren't required.

Spitzer, a Democrat running for governor next year, said he started the investigation at Bruning's urging.

"The agreement we have today is the first of its kind," Spitzer said. "We think this is an agreement that can be a template for others to use."

Bruning said the agreement means "our children are safer online and predators have fewer opportunities to prey on them."

Among the illicit chat rooms removed were those with labels such as "girls 13 & up for much older men," "8-12 yo girls for older men," and "teen girls for older fat men." Many of these were located within the "Schools and Education" and "Teen" chat categories.

An undercover investigator, posing as a 14-year-old while visiting one of those chat rooms, received 35 personal messages of a sexual nature over a single 25-minute period, the attorneys general said.

Spitzer and Bruning said they launched their investigations earlier this year after receiving tips that children had unfettered access to adult chat rooms.

Other measure announced under the agreement:

- * Yahoo will make it easier to report any threats to child safety, give priority to such complaints and designate specific employees to do so.

- * Yahoo will develop educational materials and feature them on the Yahoo network, promoting the safe use of chat rooms.

- * Yahoo will donate \$175,000 to the National Center for Missing and Exploited Children's New York affiliates, and provide banner advertising to that organization targeted to teens.

Samsung to Pay \$300 Million Fine for DRAM Price Fixing

Samsung Electronics and its U.S. subsidiary Samsung Semiconductor have agreed to plead guilty and pay a \$300 million fine for participating in an "international conspiracy" to fix prices on DRAM, the U.S. Department of Justice announced today.

Samsung's fine is the second-largest criminal antitrust fine in U.S. history and the largest criminal fine since 1999, the DOJ said.

Resolving the investigation was "paramount" to Samsung, said Chris Goodhart, the company's director of marketing communications. The settlement will not affect Samsung's day-to-day operations, she said in an e-mail statement.

"Samsung is strongly committed to fair competition and ethical practices and forbids anticompetitive behavior," Goodhart added.

The DOJ filed a one-count felony charge against Samsung today in U.S. District Court in San Francisco. Between April 1999 and June 2002, the

South Korean company and its U.S. subsidiary conspired with other DRAM (dynamic RAM) manufacturers to fix prices of DRAM sold to PC and server manufacturers, the DOJ said.

Computer makers affected by the price-fixing scheme were Dell, the former Compaq Computer, Hewlett-Packard, Apple Computer, IBM, and Gateway, the DOJ said.

Under a plea agreement, which must be approved by the court, Samsung has agreed to cooperate with the DOJ in its continuing investigation of other DRAM producers, the DOJ said.

Samsung is charged with contributing to the conspiracy by communicating with competitors about the prices of DRAM to be sold to some customers and then agreeing to charge the settled-on prices, the DOJ said.

With Thursday's announcement, three semiconductor companies and five people have been charged in the DOJ's ongoing antitrust investigation into price fixing in the DRAM industry. So far the DOJ has collected more than \$646 million in fines in the investigation.

In May 2005, South Korean manufacturer Hynix Semiconductor agreed to plead guilty and was sentenced to pay a \$185 million fine. In October 2004, German manufacturer Infineon Technologies pleaded guilty and was sentenced to pay a \$160 million fine.

In December 2004, four Infineon executives pleaded guilty to the DRAM price-fixing conspiracy. The four Infineon employees served prison terms ranging from four to six months, and each paid a \$250,000 fine.

In December 2003, the DOJ charged Alfred Censullo, a regional sales manager with Micron Technology, with obstruction of justice. Censullo pleaded guilty and said he withheld and altered documents related to a grand jury subpoena served on Micron in June 2002. Censullo was sentenced to serve six months of home detention.

EBay's PayPal to Buy VeriSign Unit for \$370 Million

eBay Inc. and VeriSign Inc. on Monday said they had agreed to a strategic alliance that calls for the two companies to collaborate on payment services and security for e-commerce.

VeriSign shares rose 5.2 percent to \$21.08 in after-hours trade following announcement of the wide-ranging deal.

Under terms of the agreements, eBay's PayPal, the largest online payments company, will pay about \$370 million in cash and/or stock to buy VeriSign's payment processing gateway business and combine it with PayPal's merchant services.

VeriSign, a top supplier of online security software, also will provide eBay and PayPal with a suite of security services that includes use of so-called "two-factor authentication," a security system that gives customers a one-time password to help protect against online identity theft.

EBay, one of the world's top e-commerce brands, together with VeriSign also

said they have signed a multi-year security technology deal. This calls for eBay to make use of VeriSign technologies to help protect online transactions, including the purchase of up to one million "two-factor" identity tokens.

PayPal said the acquisition of VeriSign's payment software system - which processed more than \$40 billion in payment volumes during 2004 - will help the company accelerate its push into the merchant services market. VeriSign counted tens of thousands of small and medium-sized business customers.

The payment gateway works instantaneously and on a broad scale to give merchants a way to authorize, process and manage online payments, the companies said in a statement. The additional payment system expands the range of processing choices available via PayPal it said.

As a result of the deal, PayPal said the payment gateway business is expected to generate an incremental \$100 million of revenue for it in 2006.

Yahoo Accused of Raiding Workers

Nuance Communications, a Menlo Park maker of speech-recognition software, has sued Yahoo for unfair competition and theft of trade secrets, accusing the Internet giant of "raiding" all but one of Nuance's research and development engineers.

Nuance said 13 engineers from its Menlo Park and Montreal offices were 75 percent finished with a project that would allow people to search the Internet by speaking their queries into a telephone, rather than typing them on a computer keyboard. Nuance planned to sell the technology to companies like Yahoo.

In a lawsuit filed Tuesday in Santa Clara County Superior Court against Yahoo and the defecting engineers, Nuance asserts, "Yahoo will be able to enter the interactive speech-technology market with Nuance's cutting-edge technology, but without the significant time and R&D costs expended by Nuance."

Nuance will argue in court today for a temporary restraining order and preliminary injunction preventing its former engineers from working on the same project at the Sunnyvale search giant.

Yahoo has filed a sealed rebuttal. Spokeswoman Kiersten Hollars declined to comment, except to read a prepared statement: "We believe the claims in the lawsuit are without merit and plan to defend ourselves vigorously."

This is the latest in a string of such lawsuits - known as "employee raiding cases" - emerging over the past year. Experts say it's evidence that the tech economy is improving and the race for innovation on the Internet is speeding up.

In July, Microsoft sued Google - which then counter-sued - for hiring Kai-Fu Lee, a computer scientist with expertise in search technology and the Chinese Internet market. Microsoft alleged that Lee, who had signed a non-compete agreement not to work for competitors, of using his inside knowledge of Microsoft plans to get a job at Mountain View-based Google. A judge in Washington state this month barred Lee from working on products, services or projects at Google that he also worked on at Microsoft, pending

a January trial.

In its lawsuit, Nuance claims its technology is "so valuable" that Yahoo preferred to "raid Nuance's R&D staff, so as to acquire and control it, rather than purchase a valid license for Nuance's technology."

The company's core "speech engine" technology swiftly matches the sound waves of whatever a caller says to the electronic patterns of 25 million words and phrases stored in its database. Yahoo had licensed a version of the technology, which converts text to speech, to allow premium e-mail customers to listen to their e-mail messages over the phone.

Larry Heck, Nuance's vice president of R&D engineering, and his team of engineers spent the past 18 months developing a more specialized, advanced version of the speech technology that would be sold to online search companies and Internet service providers.

Heck "began agitating for more authority" as Nuance was being acquired by rival ScanSoft, of Peabody, Mass., Nuance said. But the combined company denied his request to be named chief technology officer.

Meanwhile, Heck swapped e-mails with Yahoo about joining its team. The suit says Heck then e-mailed himself his own, a list of Nuance employees to potentially bring to Yahoo, and a proposed organizational plan for an R&D department.

On Aug. 30, Heck announced he was quitting Nuance to work at Yahoo. So did one of his key managers.

The next day, another important manager from Heck's team turned in his resignation to go to Yahoo.

A few weeks later, Nuance's six-person Montreal R&D team that was overseen by Heck resigned to go to a Yahoo speech lab in Montreal, "where Yahoo has never previously had any base of operations," the suit said. The same day, the last three Nuance R&D engineers in Menlo Park quit to join Yahoo.

Yahoo spokeswoman Hollars said it's "fairly obvious" that the contest for engineers is heating up.

"Frankly, honestly, we want really great talent," she said. "If they want to come to Yahoo, we're not going to stop them."

Sometimes, companies act super-aggressively, filing employee raiding suits to scare other workers away from defecting to competitors, employment lawyers said.

Whatever the case may be with Nuance and Yahoo, the unfolding legal fight could provide insights into the inner workings of tech companies as they jockey for talent and advantage in the market. Cases like this often throw into the public realm internal e-mails in which senior executives discuss plans and strategies to compete against rivals, the attorneys said.

Security: Microsoft's Next Antitrust Battle?

Microsoft's moves into the security software market could be an agitator for more antitrust concerns over how it uses its market strength for other

software offerings.

Last week, the company announced a new product for businesses called Microsoft Client Protection, with a beta version due before the end of the year. Also in the pipeline is Windows OneCare Live, an antivirus and spyware product for consumers due for a public beta release later this year.

The products are the fruit of Microsoft's commitment more than two years ago to offer antivirus products, which included acquiring antispymware technology and firms such as Sybari Software earlier this year and the Romanian antivirus software developer GeCAD Software in 2003.

One European antitrust lawyer sees the move into security software as another attempt by Microsoft to take advantage of its strength in operating systems in order to extend that strength into neighboring markets.

"It's the classic issue of what is the end of the legitimate scope of Microsoft's dominance," said Anthony Woolich, head of the European Union competition team at Lawrence Graham in London.

Microsoft's Windows Vista operating system will have security features that help protect computers from viruses, worms, and spyware, according to the company's Web site. But what security features will be in Vista and how those are tied to the operating system and interact with other products could be key.

The company plans to sell OneCare as an add-on annual subscription for Windows XP and Vista, said Rebecca Smith, a Microsoft spokesperson, in an e-mail response to a query.

Complaints against Microsoft in the European Commission last year showed that if a product can be sourced independently, "that would suggest it is a separate market," Woolich said. It would mean that arguing that security features are an integral part of an operating system may not apply in an antitrust battle, Woolich said.

Symantec said last week that it has provided information to the European Commission. Jonathan Todd, spokesperson for European Union Competition Commissioner Neelie Kroes, said last week that as a matter of practice he can't confirm ongoing investigations by the Commission.

Symantec Chief Executive Officer John Thompson on Tuesday confirmed documents were given to the Commission but sought to dampen speculation that a court fight was brewing. Symantec's relationship with Microsoft is one of "mutual dependency," he said, and that the company is not involved in a Commission investigation.

An earlier investigation into software bundling led, in May 2004, to the Commission ordering Microsoft to sell a version of Windows without its Media Player software and to offer licensing protocols used by its workgroup server software. The company was fined a record \$596 million.

The ruling found that Microsoft abused its dominant market position by bundling its Media Player software with its OS without a legitimate business justification. The decision is on appeal to the European Court of First Instance.

But the ruling by the Commission only applied to Microsoft's bundling of the Media Player software, said Davina Garrod, a competition and regulatory

lawyer with McDermott Will and Emery in London.

"The decision is limited to the facts of the case and so does not prohibit Microsoft from bundling other products with its OS if it wants," Garrod said.

Investment bank Goldman Sachs issued a statement Friday saying Microsoft appears to be trying to stay away from antitrust problems as it increases its security efforts. The company has not announced its security intentions for Vista, so it is "clear that there is not even an issue here," the report said.

But Microsoft must be cognizant of the Commission, as the precedent set could require the company to unbundle features it doesn't want to, such as security, Goldman Sachs said. U.S. antitrust law tends to permit the integration of additional features that benefit consumers - such as adding a radiator to a car - as long as it is not done with monopolist intent, the report said.

U.S. Gains in Fight Against Spam

The majority of Internet spam still is coming from the U.S., but the country is making headway in fighting mass e-mail attacks, according to the most recent analysis from security authority Sophos.

The company's latest "dirty dozen" report listing the top 12 spamming countries shows that the U.S. remains the worst offender, but is relaying significantly less of the world's spam than it did a year ago, while spam traffic from China and South Korea increased substantially.

At the same time, detecting the origins of spam is becoming more difficult as the use of zombie computers - hijacked PCs infected by malware - now accounts for 60 percent of all such attacks, Sophos reports. The evolving nature of spamming now allows culprits to be in a different country than the computers they exploit.

While the United States, South Korea and China (including Hong Kong) still account for more than 50 percent of all spam, the United States (down to 26 percent from 42 percent in 2004) and Canada (down to 3 percent from 7 percent in 2004) have reduced their roles in the problem significantly.

By contrast, the percentage of spam generated in China and Hong Kong shot from 9 percent in 2004 to 16 percent this year; South Korea saw a leap from 12 percent to 20 percent.

The problem is worse in the U.S. and South Korea because of the higher number of computer users with broadband connections, which makes it easier for spammers to do their dirty work.

"In North America, [Internet service providers] are sharing more knowledge on how to combat spammers and are educating users about the problem," said Graham Cluley, senior technology consultant for Sophos. Also having an effect in the U.S. is enforcement of the CAN-SPAM Act, he said, which has resulted in some spammers going to jail or being forced to relocate overseas.

The introduction of Windows XP SP2 a year ago, with its improved security,

has done much to defend home users from computer hijacking, Cluley said. The concern now is that spammers will turn to other net-based scams, such as spyware and identity-theft malware, to make a quick buck, he said.

Faced with international awareness and country-specific legislation, spammers increasingly are turning to illegitimate service providers, virus writers, and hackers. By taking control of unprotected PCs, hackers can relay spam, launch denial-of-service attacks or steal user information, without detection, Sophos reports.

Cluley urged computer users to keep their antivirus software up to date, run a properly configured firewall and install the latest software patches.

The "dirty dozen" list is as follows:

1. United States 26.35%
2. South Korea 19.73%
3. China and Hong Kong 15.70%
4. France 3.46%
5. Brazil 2.67%
6. Canada 2.53%
7. Taiwan 2.22%
8. Spain 2.21%
9. Japan 2.02%
10. United Kingdom 1.55%
11. Pakistan 1.42%
12. Germany 1.26%

Other nations: 18.88%

Old PCs Get a New Life

In an industrial office complex outside of Boston, used computers, servers, monitors, and printers are put to rest. Some will become technology organ donors, their parts removed for use in machines that are deemed salvageable. Components and parts might wind up being shipped to recycling centers in Tennessee or California, where their bits of gold, silver, and copper will be removed and their steel sold for use as construction materials.

The Technology Renewal Center in Andover, Massachusetts, is operated by Hewlett-Packard Financial Services, and is where damaged and outdated equipment that had been leased to customers is sent for repair, rehabilitation, or recycling in a process replicated by vendors throughout the IT industry, which has increasingly turned attention to environmental concerns.

HP's financial services arm encourages customers to lease computer equipment, and as part of those contracts the company is responsible for recycling hardware, as well as for scrubbing personal data from machines to meet U.S. regulations related to protection of private information. Other major IT vendors such as IBM, Dell, Toshiba, and Apple - to name but a few - have similar initiatives.

Governments, including the European Union, have established regulations regarding the disposal of hazardous materials as well as laws related to recycling of computer hardware. Meanwhile, environmental groups also continue to push companies to assume responsibility for safely disposing of equipment that contains toxins such as lead, mercury, and cadmium.

"Those types of laws, particularly related to the handling of hazardous materials, are, I think, probably the most important drivers," spurring companies to initiate hardware recycling and refurbishment programs, said Roger Kay, president of analysis firm Endpoint Technologies Associates in Massachusetts. "It's the fear of litigation that drives companies to do the right thing here. They're not all touchy-feely environmentalists."

There is no U.S. federal legislation regulating hardware disposal or recycling, although individual states have such laws, and the Environmental Protection Agency has a number of initiatives related to safe disposal, recycling and so-called "green" design. This reflects a growing movement aimed at redesigning computer equipment so that it is made with minimal potentially toxic elements.

Hardware recycling efforts overall have begun to bear fruit. Carnegie Mellon University's Green Design Initiative predicts that almost 150 million computers will be recycled this year, which had been the number expected to wind up in landfills. Instead, about 55 million will end up in the trash, with that number expected to continue to decline as consumer awareness becomes heightened.

No matter the motivation that pushes companies to recycle or reuse hardware "it's great for customers," said Anne MacFarland, director of infrastructure architectures and solutions at The Clipper Group consulting firm. Such programs enable users to obtain affordable hardware. School districts often lease or purchase used equipment, as do many small businesses whose owners can't afford newer technology or whose IT needs are fulfilled without new gear.

But it's particularly beneficial, MacFarland said, when companies assume liability for their customers when it comes to equipment disposal, making it more likely than not that regulations will be followed.

"You don't want these things to be a charity because then they go away," MacFarland said, adding that IT recycling and related programs are more likely to succeed and be sustained if they are part of an overall company business plan aimed at generating revenue.

The overall push by vendors to establish hardware recycling, rehabilitation and reuse initiatives - some of which have been around for a decade or longer - is a continuing positive shift at a time when computer equipment lifecycles have become shorter, by some estimates dropping to about two years. But even those computers that are destined for the rubbish heap have some value for their parts.

"Nothing is really wasted when it comes through this process," Jim O'Grady,

director of the HP renewal center said last week during a tour of the facility, where pallets of incoming hardware were stacked with monitors and old laptops, some of which had been severely ill-treated by users. On one pallet, at least 12 monitors were bound together with kitchen-grade plastic wrap rather than the industrial strength version that should have been used. The monitors on the bottom of the stack were facedown with other monitors heaped on top of them.

O'Grady and Jim Shea, who manages the center, are accustomed to seeing such jaw-dropping displays of carelessness, so it comes as no surprise to them when computers are sent to the facility containing "company proprietary information, personal information," O'Grady said. Cell phones, passports, and even credit cards have turned up in laptop bags. All personal information is scrubbed from computers to comply with data protection legislation, while cell phones and passports are returned to their rightful owners.

Even the most "challenged" hardware might find new life and be refurbished and leased to customers, who sometimes want to replace equipment going back as far as almost 20 years. Some of them are wedded to, for instance, old Digital Equipment servers and software. It could be the customer can't afford to upgrade an entire data center or it could simply be that the IT department really likes the older gear. The HP Technology Renewal Center is, in fact, housed in what was Digital's global spare parts facility, which was acquired by Compaq, then later bought by HP.

Increasingly, the HP center receives requests from companies or government agencies that have lost equipment in a disaster. The center was able to provide replacement equipment for financial services and related companies after the September 11 terrorist attacks destroyed some facilities in New York, O'Grady said. The center also was able to quickly send hardware to Federal Emergency Management Agency offices set up in the wake of Hurricane Katrina after it struck the U.S. Gulf Coast in late August. O'Grady anticipated similar requests after Hurricane Rita hit Texas and Louisiana.

Although the center wasn't established as a place customers could turn to when they needed quick replacements after disasters, it has taken on that role and now prepares equipment in advance for quick shipping after hurricanes when those are headed toward U.S. shores. The market for recovery of technology after a disaster is "very competitive," O'Grady said, but HP seems to treat it as much as a service as a business opportunity.

"We're not doing this for \$6 a gallon. No gouging," he said, referring to the spikes in prices per gallon of gasoline in the U.S. after the recent hurricanes hit the refinery-rich areas of the Gulf Coast. "We want to give back to the community. We wouldn't take advantage of a situation like that."

While HP takes the high road and tries to rehabilitate as much equipment as it can, there is a "fairly seamy underside" of hardware recycling and disposal, analyst Kay said. "In the end, when you can't decide what to do with your pile of waste, through your brokers you can have it put on a boat that's going to take it to China. You lose track of it and your hands are clean."

Disposal of potentially hazardous waste in China, Africa and other developing areas outside of the U.S. is an issue still to be reckoned with. So is the manufacture of goods made from toxic materials in countries that lack protections for workers, Kay said.

Large hardware vendors that have an international presence - Kay specifically mentioned Dell and IBM as leaders in this regard - "are more likely to have an enlightened policy" and to have in place safeguards that keep their used equipment from falling into the hands of nefarious brokers.

Such programs will undoubtedly continue to increase both in terms of the number of companies that implement them, as well as in their scope, encompassing smaller electronics goods as well as larger products. Meanwhile, Kay isn't inclined to place the onus on hardware vendors because he believes that users also have to take responsibility for environmental issues related to the technology they use.

"For me, it's very easy to say who is responsible," Kay says. "Everybody is responsible... every consumer, every producer."

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